

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket: **YOUSDIM=1.1A**

In re Application of:) Conf. No.: **4865**
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Moussa YOUSDIM et al) Art Unit: **1625**
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Appln. No.: **10/534,357**) Examiner: **Z. N. Davis**
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I.A. Filed: **11/07/2003**) Washington, D.C.
371(c) **02/21/2006**))
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For: **NEUROPROTECTIVE IRON**) **December 22, 2009**
CHELATORS AND ...))

**REPLY TO RESTRICTION AND
ELECTION OF SPECIES OFFICE ACTION**

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop Amendment
Randolph Building, 401 Dulany Street
Alexandria, VA 22314

Sir:

The present communication is responsive to the Office Action of November 20, 2009. The claims pending in the present application are claims 1-60, 79-94, 96-134, 136 and 138-140. The claims have been subject to a lack of unity restriction requirement. Reconsideration and withdrawal of the lack of unity requirement and examination on the merits of all of the claims now present in the case are respectfully urged.

The examiner has recast the lack of unity of invention issue and now states that the set of claims contains 22 patentably distinct inventions, one of which must be elected

for further prosecution. The 22 allegedly distinct inventions are:

Inventions 1-4, encompassing Claims 1-60 and 99-109 (in part) drawn to compounds comprising an iron chelator function of formula I-IV, respectively, as defined in claim 38.

Invention 5, encompassing Claims 1-60 and 99-109 (in part) drawn to compounds comprising an iron chelator function, wherein the compound is other than one of the formulas displayed in claim 38.

Inventions 6-9, encompassing Claims 79-94, 110-128, drawn to a method for iron chelation therapy using a compound of claim 1 presented by the formula I-IV, respectively, as defined in claim 38.

Invention 10, encompassing Claims 79-94, 110-128, drawn to a method for iron chelation therapy using a chemical compound of claim 1, which is other than one of the formulas displayed in claim 38.

Invention 11, encompassing Claim 96, drawn to a method for iron chelation therapy using the compound 5-[4-(2-hydroxylethyl)piperazin-1-ylmethyl]-8-hydroxyquinoline (VK-28).

Invention 12, encompassing Claim 97, drawn to a cosmetic composition for topical application comprising the compound 5-

[4-(2-hydroxylethyl)piperazin-1-ylmethyl]-8-hydroxyquinoline
(VK-28).

Invention 13, encompassing Claim 98, drawn to a method for preservation of organs intended for transplantation using the compound 5-[4-(2-hydroxylethyl)piperazin-1-ylmethyl]-8-hydroxyquinoline (VK-28).

Inventions 14-17, encompassing Claims 129-134, drawn to a method for prevention or treatment of a neurodegenerative or cerebrovascular disease, condition or disorder using a compound of claim 1, wherein the compound is presented by the formula I-IV, respectively, as defined in claim 38.

Invention 18, encompassing Claims 129-134, drawn to a method for prevention or treatment of a neurodegenerative or cerebrovascular disease, condition or disorder using a compound of claim 1, wherein the compound is other than one of the formulas displayed in claim 38.

Inventions 19-22, encompassing Claim 138, drawn to a method for preservation of organ for transplantation, wherein the compound is of formula I-IV, respectively, as defined in claim 38.

The examiner states that Groups 1-22 do not relate to a single general inventive concept as they lack the same or corresponding special technical features for the reason that

the Zhang (2005) article teaches neuroprotection by an iron chelator, which shows that the common core (i.e., a compound comprising an iron chelator function and a neuroprotective compound) is known, thereby breaking unity of invention. This requirement is respectfully traversed.

First, it is noted that claims 139 -140, drawn to a method for the treatment of a disease associated with iron overload and oxidative stress, were included by the examiner in groups 19-22, along with claim 138. However, claim 138 is directed to an *ex vivo* method for preservation of organs and a method of iron chelation is defined in groups 6-10 (claims 110-128). Thus, we assume that the examiner incorrectly grouped claims 139-140 with claim 138. Consequently, claims 139 and 140 were left out of the restriction. We note that claim 136 was also left out.

The Zhang (2005) publication cannot illustrate that the special technical feature of the present claims was known as the Zhang (2005) publication was published long after the effective filing date of the present application. The present application is the national stage of PCT/IL03/000932, filed November 7, 2003. Furthermore, the priority of U.S. provisional applications filed in 2002 and 2003 is also claimed. See the ADS filed with this case and the cover of the PCT publication, also filed with this case. These effective

filings dates of the present application are all long prior to the 2005 publication date of Zhang (2005). Unity can be broken only upon a showing in the prior art that the special technical feature is not novel. As Zhang (2005) is clearly not prior art, it cannot be relied upon for this purpose.

Additionally, it is apparent that Zhang (2005) achieves neuroprotection by iron-chelation and that this publication does NOT disclose compounds comprising both an iron-chelation function and a residue that imparts a neuroprotective function as the present claims require. Therefore, even if this publication had a date that made it available as prior art (which it does not), it is not relevant to the novelty of the present application.

Nevertheless, in order to be responsive, applicant elects, with traverse, **Invention 2** - Claims 1-60 and 99-109 (in part), drawn to a chemical compound comprising an iron chelator function of formula II and a pharmaceutical composition comprising said compound.

Applicant has further been required to elect a single species to aid the examiner in the examination. If the elected species is found allowable, the examiner will examine other species.

Applicant hereby elects the compound **M30** as the elected species (see Appendix III of the present

Appln. No. 10/534,357
Reply dated December 22, 2009
Reply to Office Action of November 20, 2009

specification). The claims, which read on the elected species are claims 1-5, 7-23, 38, 44, 52, 59, 60, 99-101 and 109, of which claims 1-5, 7, 8, 11, 12, 16-19, 38, 44, 60, and 109 are generic claims.

It is submitted that all of the claims now present in the case comply with the unity of invention requirements. Prompt consideration on the merits and allowance of all of the claims now present in the case are therefore earnestly solicited.

Respectfully submitted,

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